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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,445	10/13/2000	Charles Lee Aspin	ASPL-007	1343
7590	01/05/2004		EXAMINER	
Curtis V. Harr Registered Patent Attorney P. O. Box 2842 Fargo, ND 58108-2842			ADDIE, RAYMOND W	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/687,445	ASPLIN, CHARLES LEE	
	<b>Examiner</b>	<b>Art Unit</b>	
	Raymond W. Addie	3671	

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 10/28/2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 7 and 9-21 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 7 and 9-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |                                                                                                |                                                                              |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flock # 1,943,914 in view of Lightle # 5,795,108.

Flock discloses an apparatus and method for raising sunken pavement, utilizing dirt, sand, etc. under pressure, as with compressed air, without the use of jacks or other lifting apparatus. Said apparatus comprising:

An elongate air and sand delivery line (9, 17).

An injector portion (13, 17) having a valve assembly (34), a nozzle portion (16), a threaded end portion (14), which may be utilized in a variety of manners to create a tight connection with a hole (11) formed in the pavement (6).

What Flock does not disclose is the specific structural features of the sand and air supply system. However, Lightle teaches a method and apparatus for placing granular materials, such as sand (14), to a sand gun (15, 21, 22) for distribution under compressed air pressure. Said apparatus comprising: A hopper (19), having a sand outlet, a compressed air source (26), a mixing chamber (23), which has a smaller air source pipe (31), fitted inside of a larger diameter sand outlet (40), thereby creating a venturi effect for pressurizing the sand for movement through an elongated distribution hose (16) having a nozzle (55).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method and apparatus for raising sunken pavement of Flock, with a pressurized sand source, as taught by Lightle, in order to provide a consistent, metered amount of pressurized sand to a remote point of distribution, as reasonably suggested by both Flock and Lightle. See Flock Col. 1, Ins. 1-40; col. 2, Ins. 62-col. 4, ln. 109, Figs. 1, 2; Lightle Col. 1, Ins. 1-14, Col. 2, ln. 63-col. 4, ln. 9.

In regards to Claims 9-11 Flock discloses the use of compressed air and a valve assembly (34). Lightle discloses the use of a high-volume, compressed air source and plurality of valve assemblies (30, 32, 56) for controlling the flow of sand through the distribution systems.

In regards to Claims 12-21 Flock discloses a method of raising sunken pavement, as put forth with respect to claim 1, comprising the steps of:  
Providing a supply of earth, dirt, etc. (12) for placement underneath a pavement.  
Providing a supply of compressed air.  
Delivering pressurized sand to a remote point of distribution using an elongate air and sand delivery line (9), having a nozzle (16).

Providing an injector portion (13, 114, 16, 17), optionally having a valve assembly (34), as well as a threaded end portion (14) that could be pounded into a drilled hole (11), in the pavement and/or soil beneath said pavement, so

as to provide a tight connection between the injector portion and hole (11).

Drilling a hole (11) into a pavement to be raised.

Attaching a nozzle/injector portion (16) to said hole (11).

Operating said injector portion, in a series of bursts or blows, such that said subsoil is compacted and then said slab is lifted. See cols. 2, 5-6.

What Flock does not disclose is the steps necessary to provide a consistent supply of pressurized sand. However, Lightle teaches a method of moving and placing sand, under air pressure, as put forth with respect to Claim 1 above, comprising the steps of:

Providing a storage tank (19) with sand, said tank having an outlet.

Mixing said air and sand in a mixing chamber (21, 22) to pressurize said sand for delivery to a remote location, via distribution hose (16).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the method of raising a sunken pavement, of Flock, with the steps of providing a pressurized sand delivery system, as taught by Lightle, in order to provide a consistent, metered amount of pressurized sand to a remote point of distribution. See Lightle Cols. 2-3.

In regards Claims 13-16, 18-21 Both Flock and Lightle disclose the steps of utilizing various valve assemblies (34, 30, 32, 56) to control movement and placement of the pressurized sand.

Flock further discloses the steps of drilling a plurality of holes (11) and filling each hole with pressurized sand until the pavement is leveled and then patching the hole (11) with cement or the like.

***Response to Arguments***

2. Applicant's arguments with respect to claims 7, 9-21 have been considered but are moot in view of the new ground(s) of rejection.

***Response to Amendment***

3. Applicant's amendment to Claims 7, 12, 17 has overcome the rejections cited in the Last Office Action. Additionally, the amended claims have necessitated a New Grounds of Rejection, as put forth above.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

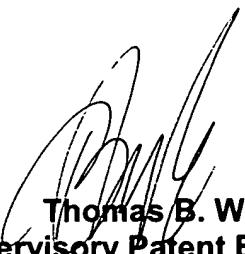
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Monday-Friday from 7:00 am to 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



Thomas B. Will  
Supervisory Patent Examiner  
Group 3600

RWA  
12/27/2003